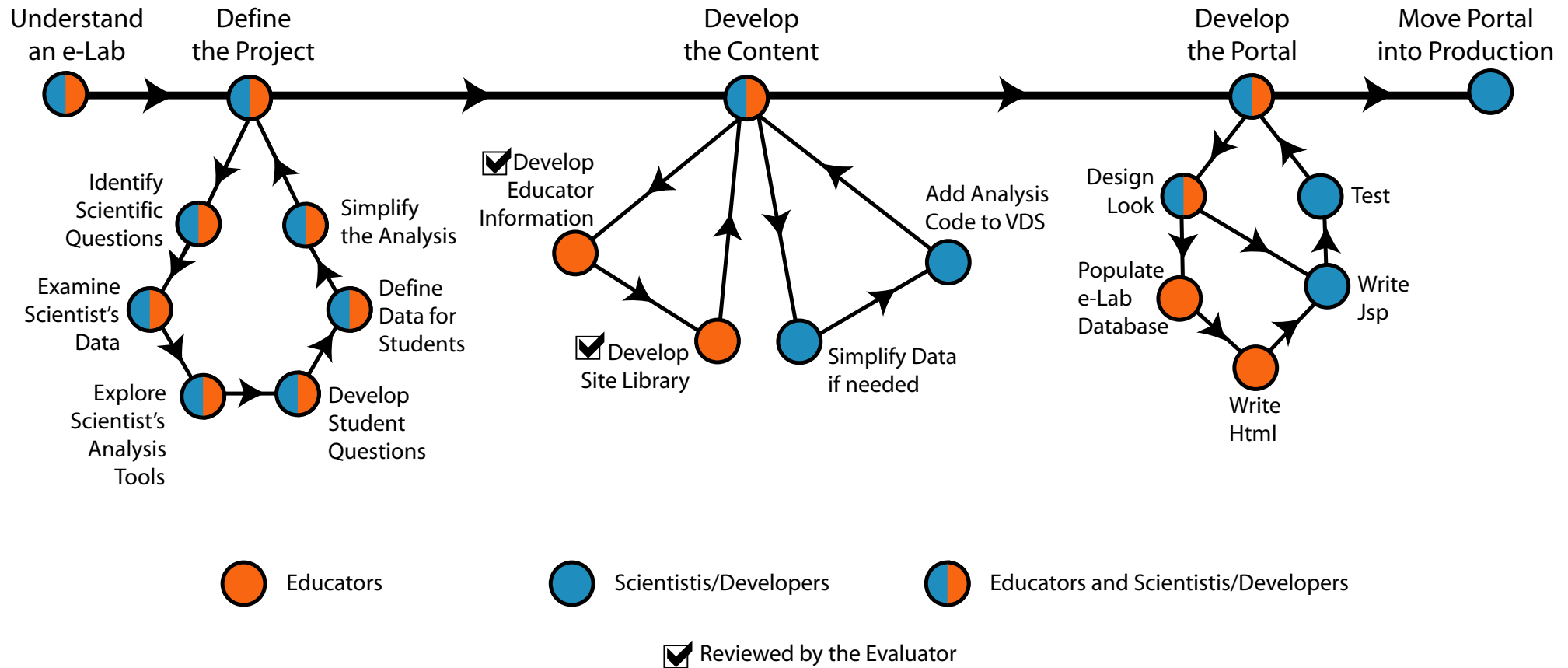


Workflow for Making an e-Lab



Understand an e-Lab



Scientist/Techie View
Architecture and Implementation:
Served from a centralized server

Common e-Lab database and tools
Virtual Data System and Chiron
Java Server Pages / Java Beans

Student / Educator View

- Project Page
- Educator Side
- Student Side
 - Data and Analysis
 - Library
 - Logbook
 - Posters
 - Assessment

Common Elements

User Registration
Library: Study Guide (Milestones), References, Glossary Items
Logbook, Comments
Workflows, Execution, Search, Plots, Annotations



Educators

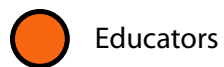
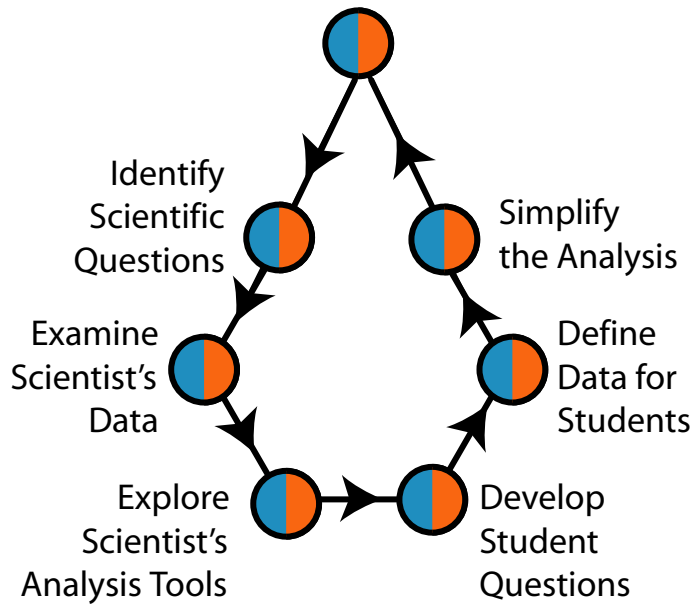


Scientistis/Developers



Educators and Scientistis/Developers

Define the Project



Scientists and educators meet together to understand how to translate the scientist's research tools and data into a student-centered research experience.

They identify

- what kind of research questions students can answer.
- how to make the data accessible to students.
- narrow down the analyses students can do.
- limit the input parameters; visualize an interface.

Educators

- experiment with tools and data with students
- optionally work with data with local tools (Excel)

- experiment with tools and data with students
- optionally work with data with local tools (Excel)

Develop the Content

Educators develop content for the teacher portal:

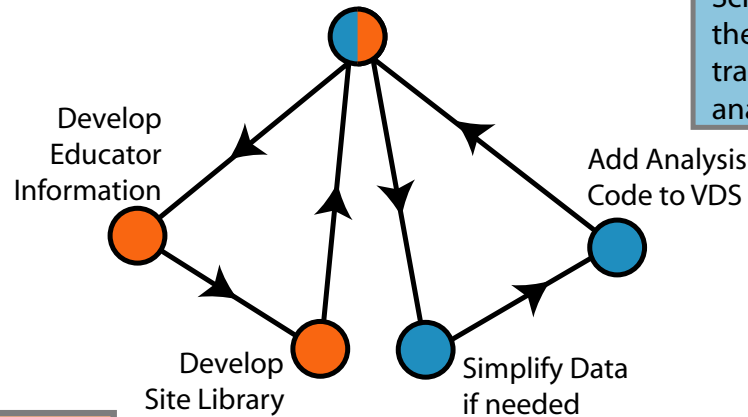
- Home
- Learner Outcomes ☒
- Rubric
- Standards
- Classroom Notes

Educators develop content for the Library:

- Study Guide
- Milestones ☒
- References
- Resources (Online resources, glossary, tutorials)
- Educators develop pre-test and post-test ☒

Scientists/developers add the analysis code to the Virtual Data System. They define and test the transformations and derivations for the analyses students will do in the portal.

Scientists/developers filter data to include important features for student research.



Educators



Scientists/Developers



Educators and Scientists/Developers



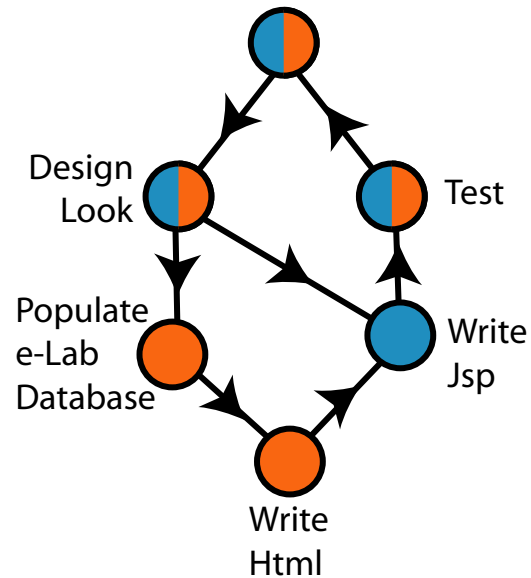
Reviewed by the Evaluator

Develop the Portal

Determine the common look for e-Lab
(graphics, navigation buttons)

Add to the e-Lab Database

- Milestones
- References
- Glossary Items



Test portal over and over!

Write jsp pages including data analysis pages using
java beans provided in the e-Lab toolkit.

Tailor include files to use e-Lab specific graphics.

Convert teachers pages to jsp pages.

Take content for educators and put into templates
for educator portal.

- Home
- Rubric
- Classroom Notes, etc.



Educators



Scientistis/Developers



Educators and Scientistis/Developers